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ADVISORY COUNCIL
SUBCOMMITTEE ON MANUAL OF PROCEDURES

Thursday
October 5, 1978
10:00 A.M.

939 Ellis Street
San Francisco
California 94109

M I N U T E S

COMMITTEE MEMBERS PRESENT: Lowell V. Smith, Chairperson; Shirley J. Campbell, Joseph D. Coons, Hiram Wolch.

COMMITTEE MEMBERS ABSENT: None.

STAFF MEMBERS PRESENT: Milton Feldstein, Dario Levaggi, Wayman Siu, Janet Simon.

- - -

Chairperson Smith called the meeting to order at 10:12 A.M.

APPROVAL OF MINUTES OF SEPTEMBER 21, 1978

Mrs. Campbell requested corrections as follows:

Page 1 - 1.3 - Add - Line 5 - Regulation 1-510
Line 8 - delete "proper".
Line 10 - "22.5"
Line 20 - "so as"

Page 2 - Line 1 - Change to "Regulation 1-510".

Line 11 - Change "will" to read "may"

Line 18 - Add "results of the reference procedure".

Page 3 - 1.5.1 - Line 8 - delete "then".

Line 16 - Add "formula in Calibration (1.5)".

1.5.3 - Line 8 - Add "of calibration gas."

Page 4 - Line 2 & 3 - delete "in a calibration Gas system."

Paragraph 6 to read:

"Storage....atmosphere, preferably between 20-25° C."

Page 5 - 2.2 - Line 2 and 3 - Add "Workbook of Atmospheric Dispersion Estimates".

Line 10 - comma after "second".

2.3 - Line 1 - comma after "lead"

Line 2 - To read "Regulation 6-1-303"

2.3.2 - comma after "arc" and "25 mph".

2.4 - Line 23 - Change "that" to "then".

Page 6 - 2.5 - Line 1 - Change "At" to "For"
Change "location" to "pair"
Change "one of the" to "the upwind"

Line 2 - Change "operated" to "considered"

Line 3 - Change "other" to "downwind"
Add "lead" after "sample"

2.6 - to read: "Care and maintenance shall be such that the instruments and samplers will function properly and record the lead concentrations in the area."

2.7 - First sentence to read - "Calibrations shall be performed to assure that the volume of air sampled is accurately known."

2.8 - delete "no." and change "4" to "4A".

Minutes were approved as amended.

REVIEW OF AIR MONITORING PROCEDURES - VOLUME VI, SPECIFICALLY: 1.5.6 Sulfur Dioxide Reference Procedure

Principle

Second sentence to read: "A stable complex is formed, which is then reacted with formaldehyde pararosaniline resulting in a colored pararosaniline derivative."

Third sentence to read: "The optical density measured spectrophotometrically, is proportional to the amount of sulfur dioxide initally absorbed."

Reagents

Paragraph 1 - delete the comma and add "and".

Reagents

Paragraph 2 - Change "Hydrochloric Acid Bleached Pararosaniline" to read "Pararosaniline Hydrochloride Solution".

Paragraph 2 - Third sentence to read: "A new standard curve should be prepared for each new batch."

Apparatus

1. Staff to provide better wording.

Sample Collection

1. Correct spelling of "rotometer" to "rotameter"

2. Correct spelling of "rotometer" to "rotameter"

3. Second sentence to read: "Quickly....to collect from 5 to 13 µl of SO_2.

Last sentence to read: "For stream concentrations approaching or greater than 1.0 ppm a flow rate of 0.5 leter per minute may be used."

Analysis

1. First sentence to read: "To the contents....1.0 ml of pararosaniline hydrochloride solution."

Second sentence to read: "Mix thoroughly..."

2. First sentence to read: "Prepare a 10.0 ml reagent blank..."

Preparation of Standard Curve

1. First sentence to read: "Dissolve 0.4000 g of sodium meta bisulfite (Assay 65.5% as SO_2) in distilled water and bring to 1 liter in a 1 liter volumetric flask."

Second sentence to read: "This yields a solution of approximately 260 µgm of SO_2 per ml."

4. First sentence to read: "Add respectively 0, 1.0, 2.0, 3.0, 4.0, and 5.0 ml of the working standard to a series of graduated test tubes."

Second sentence to read: "Add sufficient...."

5. Add "above" after described and capitalize "Analysis Section".

1.5.7 Hydrogen Sulfide Reference Procedure

Principle

First sentence to read: "The method....of hydrogen sulfide, contained in the dilute calibration stream,...."

Third sentence to read: "The methylene blue formed, proportional to the hydrogen sulfide absorbed is measured spectrophotometrically."

Reagents

1. Second sentence to read: "Dissolve 0.3 g of sodium hydroxide in approximately 100 ml of distilled water."

Third sentence to read: "Mix the two solutions slowly while stirring to the cadmium sulfate-arabino galactan solution."

2. Correct spelling of "chlrodie" to "chloride".

3. First sentence to read: "Dissolve 100 g of FeCl3.6..."

Apparatus

1. - 3. - Staff to provide better wording.

Sample Collection

1. To read: "Pre-set the air pump to a flow rate of approximately 1 liter per minute."

Second sentence to read: "Prepare...the flow meter..."

2. Second sentence to read: "Connect...the flow meter, and attach the air pump..."

3. First sentence to read: "When the calibration stream..., start the air pump and the stopwatch."

Second sentence to read: "Immediately make the minor adjustment...between 3 to 8 µl of H_2S."

Analysis

1. First sentence to read: "Add consecutively 0.3 ml of test amine solution and one drop of ferric chloride solution to the contents of each impinger."

   Second sentence to read: "Mix thoroughly..."

2. First sentence to read: "Prepare..."

Preparation of Standard Curve

2. First sentence to read: "Dissolve 0.71 g of sodium sulfide in distilled water and bring to 1 liter in a 1 liter volumetric flask."

   Second sentence to read: "This yields...approximately 100 µgm H_2S per ml."

3. Sentence to read: "Standardize, immediately prior to use,..."

5. Sentence to read: "Add respectively,...standard to a series of graduated test tubes."

   Last sentence to read: "Add sufficient volumes..."

6. Add "above after described and capitalize "Analysis Section".

Meeting adjourned at 12:05 P.M.

Reconvened at 1:15 P.M.

2.5 INSTRUMENT OPERATION

Committee did not review.

Rule 3 - Ground Level Beryllium Concentrations.

3.1 - Delete last sentence.

3.2 - Line 1 - change "3-300" to "3-303"

3.3 - 1st Paragraph to read: "Samples...using an appropriate air mover. Filters...diameter, are suitable for sample collection. The sample... employed."

Delete Sample Volume Calculation

Second paragraph to read: "All monitoring sites....equipment."

3.4 - Line 3 to read: "Procedure 2, "Determination of Beryllium in Effluent and Atmospheric Particulate Matter",..."

3.5 - To read: "A summary of data obtained during each calendar month shall be submitted to the APCO within 30

days following the end of the month by registered mail. The summary shall include excesses over allowable limits, mass emission rate from sources and notations for instrument downtime."

Rule 4 - Ground Level Beryllium Concentrations from Beryllium Rocket Motor Firing.

4.1 - Line 4 - change "Regulation 6, Rule 4" to "Regulation 6-4-301".

4.2 - First sentence to read: "Sources subject to...4-301... after the test site operation on propellant...APCO."

4.3 - First Paragraph to read: "Samples...using an appropriate air mover. Filters...diameter, are suitable for sample collection. The sample...employed."

Delete Sample Volume Calculation

4.4 - Last sentence to read: "Refer to Laboratory Procedure 2, "Determination of Beryllium in Effluent and Atmospheric Particulate Matter", contained in this manual, for the analytical procedure."

4.5 - Delete last paragraph

INTRODUCTIONS

Volume III - Laboratory Policies and Procedures

Introduction

First sentence to read: "This volume...analytical methods used for...Bay Area Air Quality Management District."

Second sentence to read: "As new methods are developed and found acceptable they may replace or be added to the existing methods in this manual."

General Provisions

2.1 - change "Quality Assurance Program -" to "Laboratory Quality Assurance Program -"

First sentence to read: "The goal of these procedures... analyses and it is essential that a laboratory quality assurance program...maintained."

2.2 Sentence to read: "Objectives of the laboratory quality assurance program are:"

2.2.1 - Sentence to read: "To provide ongoing information for monitoring unsatisfactory performance of personnel, equipment or procedures."

2.2.2 - Sentence to read: "To provide prompt detection and correction of conditions which contribute to the generation of inadequate data."

2.2.3 - Sentence to read: "To collect...data."

2.3 Sentence to read: "Elements of the quality assurance program:"

2.3.1 - changed to 2.3.2 - to read: "Routine training and evaluation of analysts."

2.3.2 - changed to 2.3.1 - to read: "Routine monitoring of the known variables which may affect the quality of data."

2.3.3 - Delete this section

2.3.4 - changed to 2.3.3 - to read: "Corrective action... same."

Second paragraph to read: "Implementation will produce in data of acceptable precision and acceptability and will... attainable."

Delete third paragraph

2.4 Sentence to read: "Analytical result...of the procedure, can be no better...of a submitted sample."

Delete second sentence

2.4.1.1 - Delete section

3.2 Should read 2.5

2.5.1 Sentence to read: "All samples will be identified and the identification carried forward with the analyical results."

2.5.1.1, 2.5.1.2, 2.5.2.3 deleted

Reagents

2.6.1 - Paragraph to read: "Reagent grade or better chemical shall be used. Lesser grades may be used,...that their use will not degrade the reagent.

2.6.2 - "Unless otherwise specified, inorganic reagents used in the preparation of standards shall be dried at 105°C for two hours and kept desiccated until used."

2.7 Sentence to read: "Distilled water or its equivalent shall be used for reagent preparation."

TIME AND PLACE OF NEXT MEETING

10:00 A.M. Wednesday, October 25, 1978, 939 Ellis Street, San Francisco, California 94109.

The meeting adjourned at 2:55 P.M.

Respectfully submitted

Mabel Harder
Secretary

JS

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